

Ecosystem Restoration Program 2014 Annual Summary

Summary: The California Department of Fish and Wildlife (DFW) recently released its Ecosystem Restoration Program (ERP) 2014 Annual Summary. Program Manager Dave Zezulak will brief the Council on the report, which summarizes ERP accomplishments during the previous fiscal year and identifies priority activities for the current fiscal year. Many of the actions undertaken or planned by ERP staff directly contribute to implementing the ecosystem restoration policies and recommendations in the Delta Plan.

Background

DFW is the State agency charged with implementing the ERP, a multi-agency effort started under the CALFED Bay-Delta Program to improve aquatic and terrestrial habitats and ecological functions within areas that include the Delta, Suisun Bay and Marsh, and the major tributary watersheds of the Bay-Delta downstream of large dams (see Attachment 1). The U.S. Fish and Wildlife Service and the National Marine Fisheries Service are the federal implementing agencies for this program.

DFW's primary role within the program is to fund and manage grant projects. Funding for the projects is provided through State water bonds, with cost-sharing from federal and local partners. Funding is given to projects whose purpose aligns with the following six strategic goals that guide the ERP:

- 1) Recover endangered and other at-risk species and native biotic communities
- 2) Rehabilitate ecological processes
- 3) Maintain or enhance harvested species populations
- 4) Protect and restore habitats
- 5) Prevent the establishment of and reduce impacts from non-native invasive species
- 6) Improve or maintain water and sediment quality

In November, DFW released the 2014 ERP Annual Summary, which describes the progress made toward achieving the program's six strategic goals during the State fiscal year 2014 (July 2013-June 2014) and identifies priority activities for the current fiscal year 2015 (July 2014-June 2015). In addition to managing grant money, ERP staff also partners with stakeholders and State and federal agencies to help accomplish shared Delta ecosystem restoration goals. This support often includes participation on scientific review teams; funding basic scientific research; helping to develop conceptual models to guide restoration design and monitoring; convening workshops to address important scientific questions; and promoting the widespread use of adaptive management.

DFW was the lead agency in developing the ERP Conservation Strategy, which was finalized in May 2014. The Conservation Strategy provides a conceptual framework to guide future ecosystem restoration efforts and coordinate restoration and conservation planning. The Conservation Strategy also acknowledges the high uncertainty of managing a dynamic ecosystem and is guided by an adaptive management approach, consistent with the Council's adaptive management framework in the Delta Plan. If and when appropriate, ERP intends for future updates of their Conservation Strategy to be made concurrently with updates to the Delta Plan.

How the ERP Helps Implement the Delta Plan

The ERP aims to restore habitats and ecological processes within the Delta and its watershed and it aligns closely with the Council's coequal goal of protecting, restoring, and enhancing the Delta ecosystem.

Delta Plan Policy **G P1** calls for projects that are covered actions under the Delta Plan to use the best available science and adaptive management. The ERP actively promotes the wide-scale use of adaptive management in habitat restoration and land management strategies. For example, the ERP Conservation Strategy is guided by an adaptive management approach and staff from the ERP and the DFW's Science Institute co-wrote a document in July 2014 that helps DFW staff incorporate adaptive management into their conservation and resource management decisions.

Delta Plan Policy **ER P2** requires habitat restoration to be consistent with Appendix 3 of the Delta Plan, which is excerpted from ERP's 2011 Draft Conservation Strategy. It describes management and restoration priorities for the various habitats found in the Delta and Suisun Marsh. Because the ERP agencies finalized the Conservation Strategy a year after the adoption of the Delta Plan, the next version of the Delta Plan can update Appendix 3 to incorporate the latest version of the Conservation Strategy. However, the changes are not substantive, and therefore Delta Plan Policy ER P2 remains consistent with the vision of the 2014 ERP Conservation Strategy.

Delta Plan Recommendation **ER R2** calls for agencies to prioritize and implement habitat restoration projects in the priority habitat restoration areas designated in the Delta Plan. Consistent with this recommendation, ERP is funding the following: construction of the Calhoun Cut (formerly Lindsey Slough) tidal marsh enhancement project in the Cache Slough Complex; the design of the Hill Slough restoration project and additional land acquisition in the Suisun Marsh; and post-construction monitoring for the McCormack-Williamson Tract project in the Cosumnes-Mokelumne Confluence area after the levees are breached.

Delta Plan Recommendation **ER R6** calls for CDFW to develop, for consideration by the Fish and Game Commission, proposals for new or revised fishing regulations to help reduce predation of listed native fish by introduced sport fish, based on sound science. DFW took the first step toward addressing this recommendation by issuing a call for proposals in Fall 2014 for research on the impacts of predation on native listed fish species that can help inform the development of new regulations.

Additionally, Delta Plan Recommendation **ER R7** calls for DFW and other appropriate agencies to prioritize and implement the list of actions to address nonnative invasive species in the 2011 Draft Conservation Strategy. In the 2014 Conservation Strategy, ERP identified eight priority actions to address nonnative invasive species, partially fulfilling Delta Plan Recommendation ER R7. DFW is currently working to implement those priority measures.

ERP and the Council's Habitat Issue Paper

The Council's issue paper, *Restoring Habitat with Science and Society in Mind* (2014), concluded with several proposed areas of focus for the next two years. Some examples of ERP projects and work by ERP staff that support these efforts included the following:

Early Consultation and Scientific Review. As noted in the issue paper, Council staff provides early consultation on habitat restoration projects that are covered actions under the Delta Plan in order to advise project proponents about using best available science and adaptive management. The paper also calls for Council staff to convene scientific experts to provide independent review of restoration project designs. ERP laid the groundwork for these efforts by helping to support a Delta Regional Ecosystem and Restoration Implementation Plan (DRERIP) scientific evaluation of restoration design alternatives at Prospect Island (2012) and Lower Yolo Ranch (2013).

Wetland Monitoring Protocols. Staff from the ERP and Council both participate in the ongoing effort led by the Interagency Ecological Program to develop a monitoring and research framework to assess the effectiveness of restoration actions, a task that is prioritized in the issue paper.

Performance Measures. Council staff must report annually on habitat restoration performance measures. Council and ERP staff have collaborated with others to work on the development of ecological indicators of estuary health that may contribute to the Council's development of additional outcome performance measures in the future.

Landscape-Scale Conceptual Models. The issue paper proposed that Council staff will work with others to complete at least one of the landscape-scale conceptual models and associated landscape habitat metrics for priority habitat restoration areas within the next two years. ERP funded the *Delta Landscapes Project* being led by the San Francisco Estuary Institute (SFEI). As part of that project, in October 2014 SFEI released its report, *A Delta Transformed: Ecological Functions, Spatial Metrics, and Landscape Change in the Sacramento-San Joaquin Delta*. The report described how the physical transformation of the Delta over the past 150 years has changed landscape processes and functions, and in turn driven trends of native plants and wildlife. The next step of the Delta Landscapes Project is a report on landscape restoration conceptual models. This work will help the Council in its development of landscape conceptual models for specific priority habitat restoration areas.

Other Ways DFW is Helping to Implement the Delta Plan

DFW also is actively working to expand nature-based wildlife viewing and hunting opportunities in the Delta and Suisun Marsh, as encouraged by Delta Plan Recommendation **ER R14**. For example, DFW has set up public waterfowl hunting programs in the Delta, a wild pig hunting program on Rush Ranch in Suisun Marsh, and sandhill crane viewing programs in the east Delta.

Today's Briefing

Dave Zezulak, the DFW Program Manager for the ERP, will provide a briefing on the status of recent ERP work as well as highlight major habitat restoration activities being led by DFW in the Delta and Suisun Marsh. The presentation will focus on the accomplishments of the past fiscal year and address priorities for the current fiscal year.

Questions for Council Consideration

1. How does the passage of Proposition 1 affect the outlook of restoration work in the Delta conducted by the ERP and DFW?
2. How should the Council work with DFW to ensure that the Delta Plan's adaptive management framework is being applied in habitat restoration projects?
3. How has the drought affected DFW priorities in restoration and scientific research in the Delta and Suisun Marsh?

List of Attachments

Attachment 1: Ecosystem Restoration Program 2014 Annual Summary

Contact

Daniel Huang
Environmental Scientist

Phone: (916) 445-5339